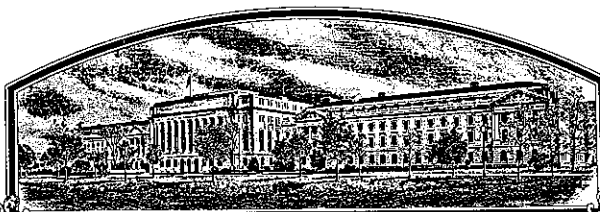


No.

8200137



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Terra Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Deltapine SR-383'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 30th day of December in the year of our Lord one thousand nine hundred and eighty-two.

Attest:

*Kenneth [Signature]*  
Acting  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*

Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED  
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY <b>73137-47-51-61</b>		1b. VARIETY NAME <b>Deltapine SR-383</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8200137</b>	
2. KIND NAME <b>Cotton</b>		3. GENUS AND SPECIES NAME <b>Gossypium hirsutum</b>		FILING DATE <b>5/12/82</b>	TIME <b>11:30</b> A.M.
4. FAMILY NAME (BOTANICAL) <b>Malvaceae</b>		5. DATE OF DETERMINATION <b>December, 1978</b>		FEE RECEIVED \$ <b>500.00</b> \$ <b>250.00</b>	DATE <b>5/12/82</b> <b>12/22/82</b>
6. NAME OF APPLICANT(S) <b>Delta &amp; Pine Land Co.</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>Rt. 1, Box 110 Lubbock, Texas 79401</b>		8. TELEPHONE AREA CODE AND NUMBER <b>(806) 762-0534</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>Delaware</b>		11. DATE OF INCORPORATION <b>10-19-78</b>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>Research Department Delta &amp; Pine Land Company Route 1, Box 110, Lubbock, Texas 79401</b>					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

May 7, 1982  
(DATE)

Jerry D. Carroll  
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

## INSTRUCTIONS

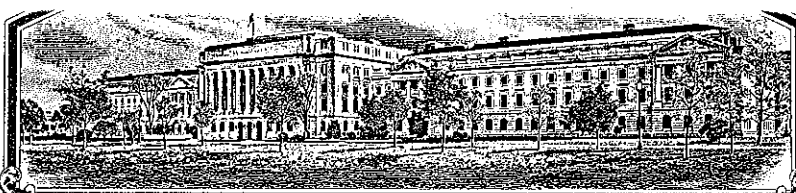
**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



RECEIVED  
MAY 12 1982



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Delta & Pine Land Co.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

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COTTON

'Deltapine SR-383'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C.

this 30th day of December in the year of our Lord one thousand nine hundred and eighty-two

Attest:

*Kenneth F. Evans*  
Acting

Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture



## EXHIBIT A

p. 2

ORIGIN AND BREEDING HISTORY

Deltapine SR-383 was developed by the Pedigree Method as the result of hybridization between a Deltapine strain and a Tamcot strain. The actual parentage is:

Deltapine Strain 6434-513-66 X Tam CA 1073-1-3

The female parent has the same parentage as the protected variety 'Deltapine SR-5' ( Acala 1517BR2 X DP Strain 5835 ).

The male parent is a selection from a disease resistant line developed by Dr. Levon Ray and the Texas Agricultural Experiment Station at Lubbock, Texas.

The hybrid cross was made during the summer of 1973. The F1 was grown in Mexico during the winter of the same year. The F2 population was grown at Lubbock, Texas during the summer of 1974. Single plant selections were begun at that time to begin the first step of a single plant - progeny row method of selection which proceeded through the F4 generation. The strain 73137-47-51-61 was derived by bulking a single F5 progeny row in 1977 derived from an F4 single plant grown in 1976.

Deltapine SR-383 has been evaluated for four years in replicated tests (1978, 1979, 1980, and 1981) with Deltapine SR-4, Deltapine SR-5, and Paymaster 303 as the check varieties. During this period Deltapine SR-383 has been tested for its response to the following diseases and pests: Verticillium wilt, Bacterial Blight, Fusarium wilt-nematode complex, and aphids.

During this period of testing a separate increase of the variety was maintained each year, serving as Breeder's seed for increase of later generations.

Deltapine SR-383 has been observed over several locations and years to be stable and uniform for the characters described in this application, *with no VARIANTS OBSERVED.* 9911 7/13/82

## EXHIBIT B

p. 3

DELTA & PINE LAND COMPANY'S APPLICATION FOR DELTAPINE SR-383NOVELTY STATEMENT

Deltapine SR-383 most nearly resembles Deltapine SR-5, with both varieties having a similar parentage on the maternal side of the cross from which each variety was developed.

Deltapine SR-383's novelty is illustrated by the following data collected from four years (1978, 1979, 1980, and 1981) by Delta & Pine Land Company in Texas.

## EXHIBIT B - Continued

p. 4

CHART

	<u>Deltapine SR-5</u>	<u>Deltapine SR-383</u>	<u>Difference</u>
1. DATA FROM TABLE B I (4 Years Testing)			
Lint Yield-Lbs./Acre	506	587	+ 81
Percent of Check	CK	116	+ 16
Lint Percent (Pulled)	20.8	21.2	+ 0.4
Percent Wilt (Verticillium dahliae)	39	24	- 15
Fiber Length, UHM, inches	.98	1.01	+ 0.03
Fiber Length Uniformity Ratio	78.2	82.6	+ 4.4
Fiber Strength, grams/tex	21.8	27.3	+ 5.5
Micronaire Index	3.2	4.1	+ 0.9
Storm Resistance Index	2.0	2.2	+ 0.2
2. DATA FROM EXHIBIT C (1 Year Testing)			
Cm. Plant Height	74.5	64.4	- 10.1
Cm. to 1st Fruiting Branch	11.4	10.9	- 0.5
Nodes to 1st Fruiting Branch	6.8	6.4	- 0.4
Cm. Diameter of Boll	2.9	3.0	+ 0.1
Cm. Length of Boll	3.7	4.0	+ 0.3
Seed Per Boll	31	31	+ 0
Cm. Width of Widest leaves at Maturity	15.6	16.0	+ 0.4

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2-1-11-12

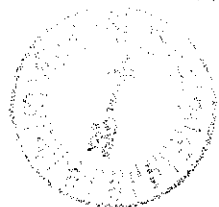


TABLE C 3

p. 12

## Student's "t" Distribution Test for Significance-Paired Plots

Year & Test No.Fiber Strength (grams/tex)

	Deltapine SR-383	Deltapine SR-5	Difference	D2
	X2	X1	D=X2-X1	
79-041	23.8	19.5	4.3	18.49
79-31	24.0	21.3	2.7	7.29
80-03	29.3	22.0	7.3	53.29
80-05	29.8	24.3	5.5	30.25
80-13	28.7	22.6	6.1	37.21
80-16	29.0	23.0	6.0	36.00
80-23	32.2	24.0	8.2	67.24
81-02	25.5	21.7	3.8	14.44
81-04	24.0	20.0	4.0	16.00
81-12	27.4	21.3	6.1	37.21
81-16	26.9	20.5	6.4	40.96
	<u>300.6</u>	<u>240.2</u>	$\sum D = 60.4$	$\sum D^2 = 358.38$

$$\bar{X}_2 = 27.3$$

$$\bar{X}_1 = 21.8$$

$$\bar{D} = 5.49$$

$$\sum d^2 = \sum D^2 - \frac{(\sum D)^2}{n} = 358.38 - \frac{3648.16}{11} = 26.73$$

$$S_D^2 = \frac{\sum d^2}{n-1} = \frac{26.73}{10} = 2.673 \text{ Variance}$$

$$S_{\bar{D}}^2 = \frac{S_D^2}{n} = \frac{2.673}{11} = 0.243 \text{ Variance of a Difference}$$

$$S_{\bar{D}} = \frac{S_D}{\sqrt{n}} = \sqrt{\frac{S_D^2}{n}} = \sqrt{\frac{2.673}{11}} = \sqrt{0.243} = 0.493 \text{ Standard Error of a Difference}$$

$$"t" = \frac{\bar{D} - u_0}{S_{\bar{D}}} = \frac{5.49 - 0}{0.493} = 11.13 **$$

$$t_{.05, 10 \text{ df}} = 2.228$$

$$t_{.01, 10 \text{ df}} = 3.169$$



TABLE C 4

p.13

## Student's "t" Distribution for Significance-Paired Plots

Year & Test No.Micronaire Index

	Deltapine SR-383	Deltapine SR-5	Difference D=X2-X1	D <sup>2</sup>
	X2	X1		
79-41	3.7	2.7	1.0	1.00
79-31	3.5	2.5	1.0	1.00
80-03	4.0	3.2	0.8	0.64
80-05	4.9	4.0	0.9	0.81
80-13	4.3	3.1	1.2	1.44
80-16	4.5	3.5	1.0	1.00
80-23	4.6	3.8	0.8	0.64
81-02	3.7	3.4	0.3	0.09
81-04	3.7	3.1	0.6	0.36
81-12	3.7	2.8	0.9	0.81
81-16	4.2	3.5	0.7	0.49
	44.8	35.6	$\sum D = 9.2$	$\sum D^2 = 8.28$

$$\bar{X}_2 = 4.1$$

$$\bar{X}_1 = 3.2$$

$$\bar{D} = 0.84$$

$$\sum d^2 = \sum D^2 - \frac{(\sum D)^2}{n} = 8.28 - \frac{84.64}{11} = 8.28 - 7.69 = 0.59$$

$$S_D^2 = \frac{\sum d^2}{n-1} = \frac{0.59}{10} = 0.059 \quad \text{Variance}$$

$$S_{\bar{D}}^2 = \frac{S_D^2}{n} = \frac{0.059}{11} = 0.0054 \quad \text{Variance of a Difference}$$

$$S_{\bar{D}} = \frac{S_D}{\sqrt{n}} = \sqrt{\frac{S_D^2}{n}} = \sqrt{\frac{0.059}{11}} = \sqrt{0.0054} = 0.073 \quad \text{Standard Error of a Difference}$$

$$"t" = \frac{\bar{D} - \mu_0}{S_{\bar{D}}} = \frac{0.84 - 0}{0.073} = 11.51 **$$

$$t_{.05, 10df} = 2.228$$

$$t_{.01, 10df} = 3.169$$

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Cotton)

OBJECTIVE DESCRIPTION OF VARIETY  
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S) <u>Delta &amp; Pine Land Company</u>	TEMPORARY DESIGNATION <u>73137-47-51-61</u>	VARIETY NAME <u>Deltapine SR-383</u>
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) <u>Route 1, Box 110 Lubbock, Texas 79401</u>		FOR OFFICIAL USE ONLY PVPO NUMBER <u>8200137</u>

Place numbers in the boxes (e.g., 0 8 9) for the characters that best describe typical plants of this variety. The symbol  $\Delta$  indicates decimal.

COMPARISON VARIETIES FOR USE BELOW

1 = Coker 310	2 = Deltapine 61	3 = Stoneville 213	4 = Paymaster 303	5 = Acala 1517-75
6 = Acala SJ-5	7 = Tamcot SP-37	8 = Pima S5	9 = Deltapine SR-5	

## 1 SPECIES:

☒ 1 = *G. hirsutum* L. ☐ 2 = *G. barbadense* L.

## 2. AREA(S) OF ADAPTATION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted):

☒ Eastern ☐ Delta ☐ Central ☒ High Plains  
☒ El Paso Area ☒ Western Low Hot Valleys ☐ San Joaquin  
☒ Other (Specify) Western High Valleys

3. MATURITY (50% Open Balls, Ideal Method: Date 50% of Crop Harvested-determined from sequential yield harvests. Give method 122 days,  
Stratified sequential harvest starting 115 days after planting - See Table C-9.)

☒ 02 No. of Days earlier than ☒ 9 } Comparison Varieties  
 Maturity same as ☐  
☐ No. of Days later than ☐  
☐ 1 = Early (Tamcot SP 37) ☐ 2 = Medium (McNair 220) ☐ 3 = Late (Stoneville 213)

## 4. PLANT:

☒ 10 Cm Shorter than ☒ 9 } Comparison Varieties  
 Height same as ☐  
☐ Cm Taller than ☐  
☒ 11 Cm to 1st Fruiting Branch (from cotyledonary node)  
☒ 06 No. of Nodes to 1st Fruiting Branch  
☒ 2 Stem Pubescence:  
 1 = Glabrous 2 = Sparse Pubescence 3 = Pubescent (Stoneville 213) 4 = Heavy Pubescence  
☒ 3 Habit: 1 = Spreading, 2 = Intermediate, 3 = Compact  
☒ 2 Foliage: 1 = Sparse, 2 = Intermediate, 3 = Dense  
☒ 3 Stem: 1 = Lodging, 2 = Intermediate, 3 = Erect

## 5. LEAF:

☒ 16 Cm Width of Widest Leaves at Maturity ☐ 1 Type: 1 = Normal, 2 = Okra, 3 = Super Okra  
☒ 2 Pubescence: 1 = Glabrous (Tamcot SP21S) 2 = Sparse Pubescence (DPL-16)  
 3 = Pubescent (Stoneville 213) 4 = Heavy Pubescence  
☒ 3 Color: 1 = Greenish Yellow (Cascot B-2) 2 = Light Green (Stoneville 603) 3 = Dark Green (Coker 310)  
 4 = Other (Specify)  
☒ 2 Nectaries: 1 = Absent 2 = Present

## 6. FRUITING BRANCH:

☒ 2 Type: 1 = Cluster 2 = Short 3 = Normal  
☒ 1 Growth: 1 = Determinate 2 = Intermediate 3 = Indeterminate

7. GLANDS (*Gossypol*):

☒ 3 Gland Density (Vegetative): 1 = Glandless 2 = Low 3 = Medium (Stoneville 213) 4 = High  
☒ 2 Gossypol % (Buds): 1 = Low 2 = Medium (Stoneville 213) 3 = High

## 8. FLOWER:

1 Bracts: 1 = Normal 2 = Frago

1 Petals: 1 = Cream 2 = Yellow

2 Nectaries: 1 = Absent 2 = Present

1 Pollen: 1 = Cream 2 = Yellow

## 9. SEEDS:

1 5 6 Seed Index (g/100 seeds, fuzzy seed basis)

8 5 0 Lint Index (g of lint/100 seeds)

3 Seed Fuzz: 1 = sparse (Gregg 35) 2 = Moderate (DPL-61) 3 = Heavy (Acala SJ-1) 4 = Tufted (Pima)

## 10. BOLLS:

3 5 3 Lint Percent

3 1 No. Seeds Per Boll

Lint % less than

6 5 6 Grams Seed Cotton Per Boll

Same as

Grams less than

Comparison Varieties

0 0 1 Lint % more than

Same as

Comparison Varieties

2 Locules: 1 = 3-4 2 = 4-5

2 Pitting: 1 = None 2 = Fine 3 = Coarse

2 Type: 1 = Stormproof (Westburn 70) 2 = Storm Resistant (Lankart 57) 3 = Open (Deltapine 16)

8 0 Mm Diameter:

2 Breadth: 1 = Broadest at Base 2 = Broadest at Middle

3 Shape: 1 = Length Less Than Width 2 = Length Equals Width 3 = Length Greater Than Width

## 11. BRACTEOLAS:

3 Breadth: 1 = Length Less Than Width 2 = Length Equals Width 3 = Length Greater Than Width

1 Teeth: 1 = Fine 2 = Coarse

4 No. Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = More Than 10

## 12. FIBER LENGTH:

3 3 Staple Length (32nd inches)

In. Span Length (2.5%)

1 0 1 In. UHM Length

In. Shorter Than

In. Shorter Than

Length Same as

Length Same as

Comparison Varieties

Comparison Varieties

In. Longer Than

0 0 3 In. Longer Than

In. Span Length (50%)

0 8 3 In. Mean Length

Uniformity Index (50%/2.5%)

8 2 Uniformity Ratio (Mean/UHM)

## 13. FIBER STRENGTH ELONGATION AND FINENESS:

1000 P.S.I. (Pressley)

2 7 3 Stelometer (17)

Elongation (E<sub>1</sub>)

4 1 0 Micronaire

Yarn Tenacity (cN/tex- 27-tex)

1 0 1 Yarn Strength (Lbs. 22's)

Open End Spun Yarn on Rieter m 1/1

## 14. DISEASES: (0 = not tested, 1 = susceptible, 2 = resistant)

2 Verticillium Wilt

2 Bacterial Blight (Race 2)

2 Fusarium Wilt

0 Bacterial Blight (Other Races)

2 Root Knot Nematode

0 Ascochyta Blight

2 Bacterial Blight (Race 1)

0 Phymatotrichum Root Rot

## 14. DISEASES (Continued): (0 = not tested, 1 = susceptible, 2 = resistant)

8200137

- ☐ Rhizoctonia solani
- ☐ Anthracnose
- ☐ Pythium (specify species) \_\_\_\_\_
- ☐ Reniform Nematode
- ☐ Alternaria macrospora

- ☐ Southwestern Cotton Rust
- ☐ Thielaviopsis basicola
- ☐ Diplodia Boll Rot
- ☐ Other (specify) \_\_\_\_\_
- ☐ Other (specify) \_\_\_\_\_

## 15. INSECTS: (0 = not tested, 1 = susceptible, 2 = resistant)

- ☐ Boll Weevil
- ☒ Aphid
- ☐ Fleahopper
- ☒ Fall Armyworm
- ☐ Grasshopper
- ☐ Lygus
- ☐ Pink Bollworm
- ☐ Stink Bug

- ☐ Thrip
- ☐ Cutworm
- ☐ Alabama argillacea (Leaf Worm)
- ☐ Spider Mite
- ☒ Heliothis zea (Bollworm)
- ☐ Heliothis verescens (Tobacco bud worm)
- ☐ Other (specify) \_\_\_\_\_
- ☐ Other (specify) \_\_\_\_\_

16. GIVE VARIETY THAT MOST CLOSELY RESEMBLES THE SUBMITTED VARIETY FOR EACH OF THE FOLLOWING CHARACTERISTICS:  
(Indicate degree of resemblance (D.R.) with one of the following numbers: 1 = Submitted variety is less than, lighter, or inferior to similar variety, 2 = Same as, 3 = More than, darker, or superior, etc. Use comparison varieties or other more appropriate varieties.)

CHARACTER	SIMILAR VARIETY	D.R.	CHARACTER	SIMILAR VARIETY	D.R.
Leaf Pubescence	Deltapine SR-5	2	1000 PSI		
Seed Index			Stelometer ( $T_1$ )	Acala SJ2	2 <sup>2</sup>
Lint Index			Elongation ( $E_1$ )		
Yarn Tenacity			Micronaire	Stripper 31	2
Verticillium Wilt Resistance	Paymaster 303	2	Fusarium Wilt Resistance		

17. COMMENTS: (Present information which cannot be adequately described in 1 to 16 that significantly distinguishes your variety such as comparative disease reactions, other expressions of maturity:)

## EXHIBIT D

p. 19

DELTA & PINE LAND COMPANY'S APPLICATION FOR DELTAPINE SR-383Additional Description of the Variety

Summary tables for each region are designated by the exhibit letter followed with a Roman Numeral, worksheets by a number and original tables by lower case letters.

ASSIGNMENT

The undersigned (the "Seller"), for good and valuable consideration hereby assigns to TERRA CHEMICALS INTERNATIONAL, INC., a Delaware corporation, and its successors and assigns (the "Buyer"), all of the undersigned's right, title and interest in and to all of the Seller's breeding rights to all generations of "stripper type" cotton seed now owned by the Seller, including, but not limited to, those described on Schedule 1 annexed hereto, and any varieties pending registration, all experimental varieties either in the increase stage or in the laboratory testing stage and all research (including such data as may be on computers), strains and materials.

This instrument is being executed in order to record the assignment described herein with the Plant Variety Protection Office of the Department of Agriculture pursuant to Section 2531(d) of Title 7 of the United States Code and the regulations promulgated thereunder.

IN WITNESS WHEREOF, the Seller has caused this Assignment to be executed on its behalf by its duly authorized officer on this 31 day of March, 1983.

DELTA PINE LAND COMPANY

By   
F.W. Canfield

STATE OF TENNESSEE

COUNTY OF SHELBY

Before me, a Notary Public, in and for said State and County, duly commissioned and qualified, personally appeared F. W. CANFIELD, known to me to be the person whose name is subscribed to the foregoing instrument and known to me to be the Financial Vice President of DELTA AND PINE LAND COMPANY, a corporation, and acknowledged to me that he executed said instrument for the purposes and consideration therein expressed, and as the act of said corporation.

Given under my hand and seal of office this 3<sup>d</sup> day of March, 1983.

*Louise Webb*

Notary Public

My commission expires:

My Commission Expires March 17, 1986

## Schedule 1

Cotton Seed Varieties of Delta and Pine Land  
Company for which Certificates have been issued

<u>Variety</u>	<u>Certificate No.</u>	<u>Certificate Date</u>
Deltapine SR-1	7200042	6/27/75
Deltapine SR-2	7200043	6/27/75
Deltapine SR-4	7500089	6/17/76
Deltapine SR-5	8000052	12/18/80
Deltapine SR-980	8100098	11/19/81
Deltapine SR-482	8200067	7/15/82
Deltapine SR-383	8200137	12/30/82



ASSIGNMENT

The undersigned (the "Sellers"), for good and valuable consideration, hereby sells, assigns and transfers to Summit Seed Company, Inc., a Texas corporation, and its successors and assigns (the "Buyer") all of the undersigned's right, title and interest in and to the following plant varieties:

Certificate Number 8400088, Terra SR-10  
Certificate Number 7200043, Deltapine SR-2  
Certificate Number 7500089, Deltapine SR-4  
Certificate Number 8000052, Deltapine SR-5  
Certificate Number 8200137, Deltapine SR-383  
Certificate Number 8200067, Deltapine SR-482  
Certificate Number 7200042, Deltapine SR-1  
Certificate Number 8100098, Deltapine SR-980

This instrument is being executed in order to record the assignment described herein with the Plant Variety Protection Office, the Department of Agriculture pursuant to Section 2531(d) of Title 7 of the United States Code and Regulations promulgated thereunder.

IN WITNESS WHEREOF, the Sellers have caused this Assignment to be executed on their behalf by their duly authorized officers, effective on the 27th day of August, 1986.

TERRA SEED COMPANY

By: Gregory J. Duerksen  
Gregory J. Duerksen  
Its: Vice President

TERRA INTERNATIONAL, INC.

By: Gregory J. Duerksen  
Gregory J. Duerksen  
Its: VP, Marketing & Development

STATE OF Iowa §

COUNTY OF Woodbury §

THIS INSTRUMENT ACKNOWLEDGED BEFORE ME on this the 4th day of May, 1988, by Gregory J. Duerksen, Vice President of Terra Seed Company.

Brenda S. Bradley  
Notary Public State of Iowa  
BRENDA S. BRADLEY, Notary Public  
In and for the State of Iowa  
My Commission Expires Aug. 18, 1989

STATE OF Iowa §

COUNTY OF Woodbury §

**BILL OF SALE**

**DATE:** May 6, 1988

**SELLER:** Summit Seed Company, Inc., a Texas corporation

**SELLER'S ADDRESS:** 622 28th Street  
Lubbock, Lubbock County, Texas 79401

**BUYER:** West Texas Seed and Delinting, Inc., a Texas corporation

**BUYER'S ADDRESS:** Box 335  
Slaton, Lubbock County, Texas 79364

**CONSIDERATION:** TEN AND NO/100THS DOLLARS (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged.

**PERSONAL PROPERTY:** (1) Certain fixed assets of Seller relating to its cotton seed business, including those assets listed on Exhibit "1" attached hereto.

(2) Seller's entire cotton breeding and research program, expressly including the breeding rights to all cotton varieties or strains now owned by Seller, including, but not limited to those registered varieties described in Exhibit "2" attached hereto, the advance experimental strains of cotton varieties listed in Schedule "3" attached hereto and all other experimental strains or varieties either in the increased stage or in the laboratory testing stage, and all research data, strains, crosses, seeds, and materials relating to cotton and/or Seller's cotton seed business.

(3) All of Seller's intellectual property rights, whether registered or not, including, without limitation, trade secrets, software, trademarks, service marks, registered names, copyrights, certificates of plant variety protection, and patents relating to Seller's cotton seed business or the assets conveyed herein, except, however, Seller does not convey any goodwill connected with the name "Summit Seed Co." or any variations thereof and WTS&D shall not have the right to use such name except in sale of existing bags, containers and/or labels bearing the Summit name.

(4) All of Seller's existing inventory of registered and breeder's cotton seed, together with all bags, labels and other containers associated with said inventory of cotton seed, and the right to use the labels, and containers in the course of sale of such inventory.

(5) All of Seller's right, title and interest in any claims, causes of action and judgments relating to Seller's cotton seed business for the assets conveyed herein.

(6) All books, records, and other data relating to Seller's cotton seed business or to the purchased assets, including, without limitation, all customer lists, fixed asset records, purchase orders, invoices, sales orders, correspondence, contract files, sales literature, catalogues, brochures, price lists, and product data.

**FOR VALUE RECEIVED** Seller sells and delivers the

personal property to Buyer and warrants and agrees to defend title to the personal property to Buyer against all lawful claims.

SUMMIT SEED COMPANY, INC., a Texas Corporation

By: Gary Rea  
Gary Rea  
Its: President

ATTEST:

Jerry Parker  
Jerry Parker, Secretary

EXHIBIT "1"

One John Deere LP Tractor

One Debur Machine

One 10 Saw Table Gin

One Cotton Press

One 10 Saw Eagle Gin

One Lint Cleaner

One Research Gin

One Micronaire Gage

One Smith Air Compressor

One Cotton Stripper

One Acid Delinter

One Saw Gin Condenser

One Four Row Planter with Cones

EXHIBIT "2"

PVP Certificate Number 8400088, Terra SR-10

PVP Certificate Number 7200043, Deltapine SR-2

PVP Certificate Number 7500089, Deltapine SR-4

PVP Certificate Number 8000052, Deltapine SR-5

PVP Certificate Number 8200137, Deltapine SR-383

PVP Certificate Number 8200067, Deltapine SR-482

PVP Certificate Number 7200042, Deltapine SR-1

PVP Certificate Number 8100098, Deltapine SR-980.

EXHIBIT "3"

X41431

X41432

X41427

X41428

X41402

X61003

X61002

X61001

X61004

Any and all other experimental varieties in existence owned by  
Summit.

Date May 6, 1988

WEST TEXAS SEED & DELINTING, INC.  
(Debtor's Name)

P. O. Box 355  
Street Address

Slaton  
City

Lubbock  
County

Texas 79364  
State

(hereinafter called DEBTOR) for value received hereby grants to

LORENZO STATE BANK

(Secured Party's Name)

(hereinafter called SECURED PARTY) whose address is P. O. Box 490

Street

Lorenzo, Crosby County, Texas 79343

City, County, and State

a security interest in and mortgages to SECURED PARTY the following described property (which hereinafter is referred to as COLLATERAL) to-wit:

All of Debtor's right, title and interest in and to the following Plant Variety Protection Certificates, each in the name of West Texas Seed & Delinting, Inc.

1. Certificate No. 8400088, Terra SR-10
2. Certificate No. 7200043, Deltapine SR-2
3. Certificate No. 7500089, Deltapine SR-4
4. Certificate No. 8000052, Deltapine SR-5
5. Certificate No. 8200137, Deltapine SR-383
6. Certificate No. 8200067, Deltapine SR-482
7. Certificate No. 7200042, Deltapine SR-1
8. Certificate No. 8100098, Deltapine SR-980

(Note—If COLLATERAL is crops, or oil, gas or minerals to be extracted, or timber to be cut, or if COLLATERAL is to become a fixture, describe in the above space following the description of the COLLATERAL the real estate concerned, and give the name of the record owner hereof.)

to secure DEBTOR'S note to SECURED PARTY dated May 6, 1988, for \$365,000.00

DEBTOR warrants and covenants:

(Note—Place checkmark (✓) in the blank space before each statement which applies to this agreement.)

- ( ) COLLATERAL is to be used for personal, family, or household purposes.  
( x ) COLLATERAL is to be used in business other than farming operations.  
( ) COLLATERAL is equipment used in farming operations, or farm products, or accounts, contract rights or general intangibles arising from or relating to the sale of farm products by a farmer.  
( ) COLLATERAL is accounts or contract rights and the records concerning same are kept at

- ( ) COLLATERAL is a fixture attached to or to become a fixture attached to the above described land.  
( ) COLLATERAL is being acquired by DEBTOR from SECURED PARTY or is being acquired with the proceeds of the advance evidenced by this agreement.

DEBTOR'S residence is at:

P. O. Box 355, Slaton, TX 79364  
(Address)

COLLATERAL will be kept at:

P. O. Box 355, Slaton, TX 79364  
(Address)

DEBTOR'S chief place of business is at:

P. O. Box 355, Slaton, TX 79364  
(Address)

or if left blank at address given for DEBTOR.

The warranties, covenants, terms and agreements on the reverse side hereof are incorporated herein and made a part hereof for all intents and purposes. DEBTOR and SECURED PARTY as used in this Security Agreement include the heirs, executors or administrators, successors or assigns of those parties.

SALE AND ROYALTY AGREEMENT

This Agreement made and entered into on the date hereinafter written, by and between SOUTHLAND SEED COMPANY, a Texas partnership, hereinafter called "Southland," and SEEDCO CORPORATION, a Texas corporation, hereinafter called "Seedco," as follows:

WHEREAS, Southland is the owner of certain equipment and an inventory of planting seed including legally protected varieties of seed, and

WHEREAS, Seedco desires to purchase the equipment owned by Southland identified in the attached Exhibit "A" for the price set out in the attached Exhibit "A" upon the terms and conditions set out in the Agreement, and

WHEREAS, Seedco further desires to purchase the inventory of planting seed of Southland and the right to reproduce and market the seed varieties of Southland upon the terms and conditions set out in this Agreement, and

WHEREAS, the parties have entered into this Agreement for the purpose of evidencing their agreements and intentions in connection with the property and rights to be acquired by Seedco from Southland.

NOW, THEREFORE, for and in consideration of the mutual benefits to the parties hereto and the covenants and agreements set out herein, it is mutually agreed as follows:



10. Texas Law to Apply. This contract shall be construed and enforced in accordance with the laws of the State of Texas, and all obligations hereunder are performable in Lubbock County, Texas.

11. Binding Effect. This Agreement shall be binding on the parties hereto, their heirs, legal representatives, successors, and assigns to the extent of any permitted assignment.

DATED this 7th day of October, 1991, but effective September 1, 1991.

SOUTHLAND SEED COMPANY,  
A Texas Partnership

P.O. Box 335  
Slaton, Texas 79364

By:

  
JIM GRAY, Partner

By:

  
JAY FRANK GRAY, Partner

SEEDCO CORPORATION

103 East Erskine  
Lubbock, Texas 79403

By:

  
LOYD LANGFORD, President

EXHIBIT "A"

ASSET LIST

Plant Variety Protection on Following Varieties:

1. Deltapine SR 482
2. Deltapine SR 383
3. Southland M-1
4. Southland 007 - Ready for PVP
5. Terra SR 10
6. Southland 400
7. All germplasm in the SOUTHLAND SEED COMPANY research program.
8. All existing PVP
9. All bagged seed in the possession of SOUTHLAND SEED COMPANY

TOTAL: \$200,996.00

Research Equipment

1. Hance Lab Seed Cleaner
2. Toledo Scales - 100 lbs.
3. Toledo Scales - 500 gm.
4. Eagle 10 Saw Gin
5. 8 Saw Table Model Gin
6. Debur Machine
7. Cotton Seed Oil Press
8. Small Delinting Line with Dryer
9. Cement Mixer (for delinting)
10. Cotton Stripper 282 J.D.
11. 4 Row Planter 6100 J.D.
12. 4 Almaco Belt Cones
13. Sortex Pneumatic Separator
14. Miscellaneous Small Research Supplies and Equipment

Office Equipment and Furniture

1. Fax Machine RF 850
2. 1 Wood Executive Desk and 3 Chairs
3. 1 Metal Credenza
4. 4 Metal Desks
5. 13 Office Chairs
6. 1 Fireproof File Cabinet
7. 5 Work Tables
8. 5 Book Shelves
9. Customer List
10. All Computer Software Pertaining to SSC

TOTAL EQUIPMENT: \$ 26,000.00

TOTAL PURCHASE PRICE: \$226,996.00 plus  
the total amount  
of "fuzzy seed"  
(to be calculated  
after closing) at  
\$160.00 per ton.

# WEST TEXAS SEED

AND DELINTING, INC.

FM 400 North - P.O. Box 335 - Slaton, Texas 79364 - (806) 828-5845

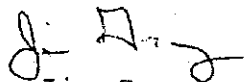
To Whom It May Concern:

The Plant Variety Protection for Southland M-1 and Southland 400 are under the name of Southland Seed Company.

The Plant Variety Protection for Deltapine SR-383, 482, SR-5, 980 and Terra SR-10 are under the name of West Texas Seed & Delinting, Inc.

Southland Seed Company was a subsidiary of West Texas Seed & Delinting, Inc. and at the time of purchase were one in the same.

All varieties listed above under Southland Seed Company and West Texas Seed & Delinting, Inc. were all owned by the same entity.

  
Jim Gray  
Owner/Manager